

## **SENIOR CIVIL ENGINEER**

### **DEFINITION:**

Under the general direction of the Director of Public Works/City Engineer, directs and performs complex or difficult civil engineering work; performs related work as required.

### **CLASS CHARACTERISTICS:**

This class is the middle management level responsible for managing and supervising engineering activities and staff. Incumbents perform difficult and complex civil engineering work which requires the exercise of considerable independent judgment, particularly when serving as a project leader on civil engineering projects. The work may include day-to-day lead direction and training of sub-professional and less experienced engineering staff.

### **IMPORTANT AND ESSENTIAL JOB FUNCTIONS:**

1. Conduct and direct comprehensive civil engineering studies and projects related to the design, construction, modification and enlargement of structures, utility facilities, roadways, site improvements and various public works projects.
2. Prepare and review plans, specifications, bids, contracts and reports.
3. Prepare economic, feasibility and environmental studies on proposed or existing facilities.
4. Act as project manager on assigned construction projects, administering the contracts and ensuring that the projects are completed within the parameters specified by the specifications and commonly accepted industry standards.
5. Use a computer to solve engineering problems, make computations and maintain accurate records.
6. Prepare complete reports including text, charts, computation, conclusions and recommendations; prepare periodic and special reports.
7. Represent the City in contacts with governmental and regulatory agencies, professional and community groups and others.
8. Direct the work of subordinate engineers and technical support staff and prepare employee evaluations.
9. Review plans submitted by developers, architects and contractors for design integrity and conformance with standards.
10. Confer with other City staff and consultants to coordinate projects and activities.

## **Senior Civil Engineer**

### **IMPORTANT AND ESSENTIAL JOB FUNCTIONS (continued):**

11. Assist in the long-range planning of City facilities and public works projects.
12. Prepare and submit grant applications for State and Federal funds.
13. Prepare and provide input on the Public Works and CIP annual budget and financial plan.

### **MARGINAL/PERIPHERAL JOB FUNCTIONS:**

1. Assist the Director of Public Works/City Engineer via involvement in regional issues that affect the City's infrastructure.
2. Assist Utility Systems Manager with water and wastewater responsibilities.
3. Perform related work as required.

### **QUALIFICATIONS:**

#### **Knowledge of:**

1. Civil engineering principles and practices related to the planning, design and construction of various public works projects.
2. Basic data processing principles as related to the solution of engineering problems.
3. Engineering mathematics and statistical analysis techniques.
4. Construction methods and practices.
5. State and federal regulations, construction codes and safety practices pertaining to the work.
6. Basic project management and supervisory principles.

#### **Skill in:**

1. Administering and coordinating varied contract projects and activities.
2. Evaluating alternative courses of action and reaching sound conclusions within established guidelines.
3. Making accurate calculations and preparing accurate reports and clear and concise written materials.

## **Senior Civil Engineer**

### **Skill in: (continued):**

4. Reviewing and interpreting plans, specifications, bids and contracts.

### **Ability to:**

1. Apply engineering principles and techniques to the solution of complex engineering problems.
2. Develop and maintain effective working relationships with those contacted in the course of the work and effectively act as a representative of the City.
3. Communicate effectively with others, analyze problems and implement solutions.
4. Prepare and maintain accurate records.

### **JOB REQUIREMENTS:**

1. Registration as a Professional Civil Engineer issued by the State of California.
2. Possession of a valid California Class C driver's license in compliance with adopted City driving standards.

### **OTHER QUALIFICATIONS:**

1. Graduation from an accredited college or university with a Bachelor's degree in Civil Engineering.
2. Four years of professional-level civil engineering experience with, or providing services for, a municipal agency.

### **MACHINES/TOOLS/EQUIPMENT UTILIZED:**

1. Automobile
2. Reports, forms, pencils and pens
3. Maps, blueprints, plans
4. Computer monitor, keyboard and printer
5. Blue-line printer
6. Copy machines
7. Fax machine
8. Calculator
9. Hard hat, safety vest, hearing protection
10. Flashlights, lanterns
11. Two-way radio
12. Telephone

## Senior Civil Engineer

### MACHINES/TOOLS/EQUIPMENT UTILIZED: (continued):

13. Intruder alarm

### PHYSICAL DEMANDS:

1. Mobility
2. Walking
3. Speaking/Hearing
4. Driving
5. Seeing
6. Sitting/standing
7. Manual dexterity
8. Speed in meeting deadlines
9. Lifting up to 40 lbs.

### ENVIRONMENTAL AND ATMOSPHERIC CONDITIONS:

#### Office Conditions:

1. Indoors: normal office conditions, 80% of the time  
Travel: varying conditions, 20% of the time
2. Noise level: conducive to office setting
3. Lighting: conducive to office setting
4. Flooring: low level carpeting
5. Ventilation: provided by central air conditioning
6. Dust: normal, indoor levels

#### Field Conditions:

1. Outdoors: varying weather conditions
2. Noise level: varying low to high equipment noise
3. Flooring: grass, dirt, rock, asphalt, etc.
4. Dust: normal outdoor, to high outdoor levels
5. Hazards: visiting sites developed and undeveloped and in various stages of construction